

Each card below contains a letter-number pair.

Rule: Any vowel card will also have an even number.

How many “?”s must be revealed to verify this rule?

A	D	?	?	E	?
4	?	8	3	?	5

Each card below contains an age-beverage pair.

Rule: Only ages  $\geq 21$  can drink alcohol.

How many “?”s must be revealed to verify this rule?

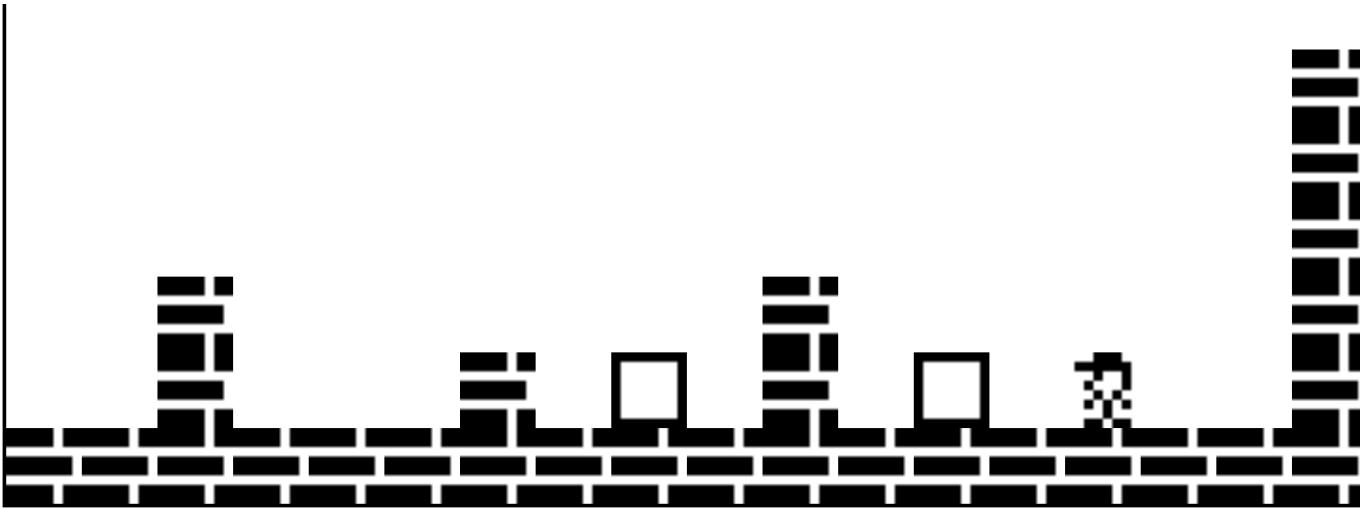
11 Lemonade	19 ?	? Wine	? Whiskey	31 ?	? Soda
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\* Thinking abstractly and recognizing similarities between different problems can make difficult questions easier – this is an essential part of physics!

\* Be careful about jumping to conclusions. The rule vowel  $\rightarrow$  even does *not* imply consonant  $\rightarrow$  odd.

# Blockdude

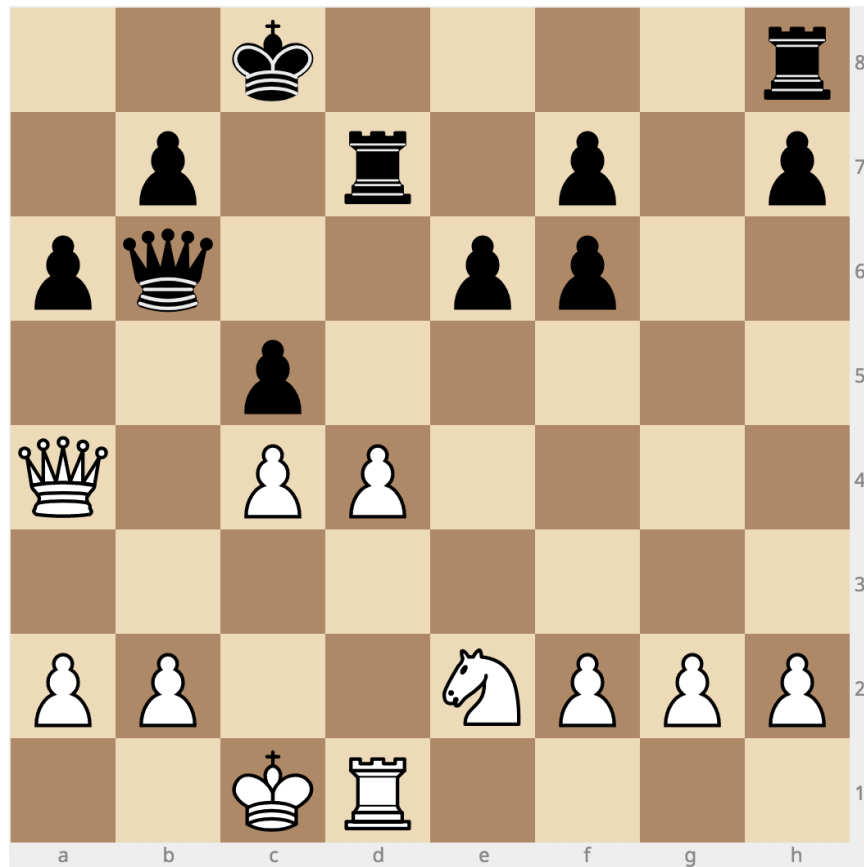
<http://azich.org/blockdude/>



In-class (solo) activity: complete levels 1-3

Similarities to physics:

- \* Learning the rules of the universe requires experimentation and observation (and sometimes luck)
- \* Incomplete knowledge of the rules can prevent success
- \* Merely knowing the rules usually isn't sufficient for solving a problem – critical thinking and problem solving skills are also necessary
- \* Solving a difficult problem may require starting from scratch multiple times
- \* Planning ahead can make you life much easier



In-class (group) activity:  
White to move.  
Find the best move.

(2k4r/1p1r1p1p/pq2pp2/2p5/Q1PP4/8/PP2NPPP/2KR4 w KQkq -)

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